

LISTING OF CLAIMS:

Claims 1 to 8. (Canceled).

9. (Previously Presented) A method for pressure-independent temperature determination, comprising:

providing a bridge circuit having a plurality of resistors on a diaphragm, a first resistor pair being positioned near the center of the diaphragm and a second resistor pair being positioned at a distance from the center of the diaphragm;

wherein the first and second resistor pairs are positioned on the diaphragm such that tensile elongation of the first resistor pair positioned near the center of the diaphragm corresponds to compression of the second resistor pair positioned at a distance from the center of the diaphragm.

10. (Previously Presented) The method as recited in Claim 9, wherein the diaphragm is a metal diaphragm, and wherein the first resistor pair is positioned near the center of the diaphragm in an area where elongation maximums occur when pressure acts on the metal diaphragm.

11. (Previously Presented) The method as recited in Claim 9, wherein the diaphragm is a metal diaphragm, and wherein the second resistor pair is positioned at a distance from the center in an area where compression maximums occur.

12. (Previously Presented) The method as recited in Claim 10, further comprising:

determining, by finite elements method, the area of the metal diaphragm where the elongation maximums occur.

13. (Previously Presented) The method as recited in Claim 11, further comprising:

determining, by finite elements method, the area of the metal diaphragm where the compression maximums occur.

14. (Previously Presented) The method as recited in Claim 9, wherein the absolute value of the elongation and the absolute value of the compression are identical.

15. (Previously Presented) The method as recited in Claim 9, wherein the diaphragm is a metal diaphragm, and wherein the configuration of the metal diaphragm is optimized geometrically as part of finite elements method simulation.

16. (Previously Presented) The method as recited in Claim 15, wherein geometric boundary conditions including at least one of the diameter of the metal diaphragm, the thickness of the metal diaphragm and the height of the metal diaphragm are taken into account as part of the finite elements method simulation.

17. (Previously Presented) The method as recited in Claim 15, wherein nominal pressure acting on the metal diaphragm is taken into account as part of the finite elements method simulation.